I. INTRODUCTION

A. This laboratory accompanies Biology 2401 lecture, Anatomy and Physiology I. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses.

B. This course is designed primarily for the career nursing and med-tech student but might satisfy requirements for other curricula in the allied health fields.

C. Prerequisites: Appropriate TSI reading score, or successful completion of reading intensive social behavioral science courses, with a minimum grade of C. Completion of BIOL 1406 and developmental courses is strongly recommended. Co-requisite: BIOL 2401.

II. LEARNING OUTCOMES

Upon successful completion of this course, the student will be able to:

A. Apply appropriate safety and ethical standards.
B. Locate and identify anatomical structures.
C. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.
D. Work collaboratively to perform experiments.
E. Demonstrate the steps involved in the scientific method.
F. Communicate results of scientific investigations, analyze data and formulate conclusions.
G. Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations and predictions.

III. INSTRUCTIONAL MATERIALS

A. The instructional materials identified for this course are viewable through www.ctcd.edu/books
IV. COURSE REQUIREMENTS

A. This course is technical and the terminology involved requires a great deal of study time. The vocabulary is extensive and precise. Proper spelling is a requirement. Memorization is necessary, but understanding must result as the final product.

B. You are expected to read all assigned materials and to bring your textbook and lab manual to class. Read ahead before ALL labs so you are familiar with the material when you arrive in lab.

C. Students are expected to attend lab during their regularly scheduled time. If for any reason a student cannot or decides not to complete the course, then it is the responsibility of the student to withdraw from the course prior to the withdrawal date. If a student ceases to attend class and does not withdraw from the course, then an appropriate course grade will be submitted at the end of the semester.

D. The student will be provided a lab schedule that links dates to lab exercises, exams/projects and holidays. If you must be absent from any lab meeting, it is your responsibility to try to compensate for missing the lab experience since there are no lab makeups.

V. EXAMINATIONS AND SEMESTER GRADE COMPUTATIONS

A. Point distribution in the course:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture exams (4 @ 100 points each)</td>
<td>400 points</td>
</tr>
<tr>
<td>Mastering A&amp;P</td>
<td>100 points</td>
</tr>
<tr>
<td>Lab exams (5 @ 100 points each)</td>
<td>500 points</td>
</tr>
<tr>
<td></td>
<td>1000 points</td>
</tr>
</tbody>
</table>

B. Percentage and points used to compute final semester grades:

- 90%-100% (900-1000 points) A
- 80%-89% (800-899 points) B
- 70%-79% (700-799 points) C
- 60%-69% (600-699 points) D
- 0%-59% (0-599 points) F

C. No makeup exams will be given. A comprehensive final exam can substitute for a missed exam. If you have taken all exams, you may take the final to substitute for your lowest exam grade. If you miss more than one exam, you will not be able to make up the points. Students must be on time for all exams. Students arriving late will not receive additional time.
D. All lab exams are fill-in-the-blank or short answer. Spelling does count and each spelling error deducts ½ point per question.

E. Cell phone and other electronic devices must be turned off and placed out of sight during exams. Use of a cell phone during an exam will result in a zero for that exam and disciplinary action. The number for your family members to call in an emergency is 254-526-1200. Appropriate personnel will immediately communicate the message to you.

F. CHEATING IS TAKEN VERY SERIOUSLY. Cheating in any form will not be tolerated. The CTC catalog is clear regarding the consequences of cheating: “Students guilty of scholastic dishonesty will be administratively dropped from the course with a grade of ‘F’ and subject to disciplinary action, which may include suspension and expulsion.” A formal charge against the student may be made to the College Disciplinary Board.

   **Cheating is defined as an act of:**
   a. Giving, receiving, and/or aiding in either the giving or receiving of any unauthorized information during testing
   b. Communicating the contents, general or specific, of any test or quiz to include the lending or borrowing of past tests or quizzes when the instructor has not specifically sanctioned this act
   c. Using in the testing area any covert and unacceptable means of receiving or giving information

VI. NOTES AND ADDITIONAL INSTRUCTIONS

A. **Course Withdrawal:** (Consistent with CTC policy)

B. **Administrative Withdrawal:** (Consistent with CTC policy)

C. **Incomplete grade:** (Consistent with CTC policy)

D. **Americans with Disabilities (ADA) statement:** The Disability Support Services Program provides services to students who have appropriate documentation of a disability. Students requiring accommodations for class are responsible for contacting the Office of Disability Support Services (DSS) located on the main campus. This service is available to all students, regardless of location. Explore the website at [http://www.ctcd.edu//disability-support](http://www.ctcd.edu//disability-support) for further information. Reasonable accommodations, in accordance with federal and state laws, will be given through the DSS office.
E. **Faculty Response Time to Student Communication:** Instructors will respond to student communication within 48 hours [two business days] during the “conventional” business week unless extenuating circumstances warrant otherwise. The instructor often can reply sooner and will reply sooner if able. Use the table below to determine the latest time in which you will receive a response.

<table>
<thead>
<tr>
<th>Communication received</th>
<th>Expect a response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday through Thursday</td>
<td>Within 48 hours</td>
</tr>
<tr>
<td>Friday</td>
<td>By 12 noon the following Monday</td>
</tr>
<tr>
<td>Saturday and Sunday</td>
<td>By 5:00 PM the following Tuesday</td>
</tr>
</tbody>
</table>

G. **Instructor Discretion:** The instructor reserves the right of final decision in course requirements.

H. **Civility:** Individuals are expected to be cognizant of what a constructive education experience is and respectful of those participating in a learning environment. Failure to do so can result in disciplinary action up to and including expulsion.

I. **Cellular Phones and Beepers:** Cellular phones and beepers will be turned off while the student is in the classroom or laboratory.

VII. **LAB OUTLINE**

Note: some units are much longer than others. Units do not correspond to a certain number of labs.

A. Unit One
   1. Anatomical terms, body regions, body systems
   2. Atoms and molecules
   3. Microscope use
   4. Histology of epithelial and connective tissues
   5. Cell cycle and mitosis

B. Unit Two
   1. Integument
   2. Skeletal system
   3. Joints and joint movements, goniometry

C. Unit three
   1. Muscles
   2. Muscle and neuromuscular junction histology
D. Unit Four
  1. Brain
  2. Nervous system histology
  3. Cranial nerves
  4. Spinal cord, spinal nerves, nerve plexuses

E. Unit Five
  1. Reflexes
  2. Eye structure, retinal histology, visual tests
  3. Ear, equilibrium and hearing tests